

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

---

Claim I (Canceled).

2. (Currently Amended) A method of generating an index entry for a record in a semi-structured database, the database comprising a plurality of records, each record comprising one or more fields having a plurality of characters therein, the method including:

(i) analyzing each field in accordance with a predetermined criterion so as to identify an entry within said field;

① (ii) generating at least one index entry representing a concordance between an identified entry and the record corresponding to the identified entry,

for each of a plurality of predetermined formats, in (i) further including searching said field to identify a sequence of characters having a format corresponding to the predetermined format, said identified sequence of characters being deemed to constitute an identified entry; and

(iii) for at least one field, defining any characters not identified as an entry in step (i)(+) as a free text entry.

3. (Previously Presented) A method according to claim 2, wherein the free text entry comprises at least one free text word defined by a sequence of alphanumeric

characters, the method further comprising:

(iv) identifying at least one free text word in a field by comparing the free text entry with at least one selection criterion defining one or more predetermined characteristics of a free text word; and

(v) generating a plurality of index entries representing a concordance between the selected free text words determined in (iv) and the respective records.

4. (Previously Presented) A method according to claim 4, wherein the records within the semi-structured database are further arranged in groups of records, each group of records being located in a heading field and being identified by at least one heading entry, wherein the method further comprises, for each heading field:

D1 (iv) identifying heading entries by comparing each heading field with each of a plurality of selection criteria, each selection criterion defining one or more predetermined characteristics of a respective heading entry; and

(v) generating a plurality of index entries representing a concordance between the heading entries determined in (iv) and the group of records in the heading field.

5. (Previously Presented) A method according to claim 2, further including arranging the index entries into groups of index entries in accordance with predetermined criteria.

Claim 6 (Canceled).

7. (Previously Presented) Apparatus for generating an index entry for a record in a semi-structured database, the database comprising a plurality of records, each record comprising one or more fields having a plurality of characters therein, the apparatus comprising:

a processor for analyzing each field in accordance with a predetermined criterion so as to identify an entry within said field;

an index generator for generating a plurality of index entries representing a concordance between the entries identified by the processor and a record; and

a data store for storing the index entries,

DA wherein the processor further includes means for searching said field to identify a sequence of characters having a format corresponding to each of a plurality of predetermined formats, said identified sequence of characters being deemed to constitute an identified entry,

wherein for at least one field, the processor defines any data not predetermined previously as an entry as a free text entry.

8. (Original) Apparatus according to claim 7, wherein the free text entry comprises at least one free text word defined by a sequence of alphanumeric characters, wherein the processor identifies at least one selected free text word for a field by comparing the free text entry with at least one selection criterion defining one or

more predetermined characteristics of a selected free text word; and, wherein the index generator generates a plurality of index entries representing a concordance between the selected free text words determined by the processor and the respective records.

D1 9. (Previously Presented) Apparatus according to claim 7, wherein the records within the semi-structured database are further arranged in groups of records, each group of records being located in a heading field and being identified by at least one heading entry, wherein the processor is arranged to identify heading entries by comparing each heading field with each of a number of selection criteria, each selection criterion defining one or more predetermined characteristics of a respective heading entry and wherein the index generator generates a plurality of index entries representing a concordance between the heading entries determined by the processor and the group of records in the heading field, the index entries being stored in the store.

10. (Original) Apparatus for accessing a semi-structured database in accordance with an input request for information, the semi-structured database having an index generated in accordance with the method of claim 5, the apparatus comprising:

input means for receiving the request;  
a parser for parsing the request to determine the components of the request;  
a slot filler for determining whether the request includes any verb components forming a verb or verb group; and, if the request includes any verb components, the slot filler determines the position of the verb or verb group within the request, and

determines any subject components representing the subject of the request and any object components representing the object of the request using the position of the verb or verb group; and, if the request includes no verb components, the slot filler determines any components to be object components, wherein each slot corresponds to one of the group of index entries and wherein the slot filler is arranged to allocate at least one component to a respective slot of a slot-and-filler request; and

a query constructor for accessing a database,

wherein the query constructor is arranged to compare each of the components allocated to a slot in the slot-and-filler request to one or more index entries in a respective group of index entries, to select the index entries for records which have entries including any of the components and, to use the index entries to determine the location of each respective record in the semi-structured database.

11. (Currently Amended) Apparatus for accessing a semi-structured database in accordance with an input request for information, wherein the semi-structured database comprises a plurality of items, each item comprising one or more fields having a plurality of characters therein, at least one of the fields being a free text field, the apparatus comprising:

means for accessing a data store comprising a plurality of index entries each representing a concordance between an entry in a field of an item and an item;

input means for receiving a request for information, the request comprising a natural language phrase;

a parser for parsing the natural language phrase request to determine components of the phraserequest;

a slot filler arranged to identify, from the components of the phrase determined by the parser, one or more object components of the phrase representing an object of the request, the slot filler being further provided with a slot-and-filler request from the parsed request, wherein each slot thereof corresponds to a group of index entries and wherein the slot filler is arranged to allocate at least one of the identified object components ~~component~~ to a respective slot of the a-slot-and-filler request; and

D1  
a query constructor for accessing the data store, wherein the query constructor is arranged to compare the allocated component with index entries within a group corresponding to the slot of the allocated component so as to identify an index entry corresponding thereto, and to use the identified index entry to identify an item in the semi-structured database.

12. (Previously Presented) Apparatus according to claim 11, further including:

an index generator comprising a processor arranged, in respect of each item in the semi-structured database, to analyze each field in accordance with a predetermined criterion so as to identify an entry within said field, and to generate at least one index entry representing a concordance between an identified entry and the item corresponding to the identified entry, and store the generated index entry in the data store;

wherein for each of a plurality of predetermined formats, the processor is

arranged to search said free text field to identify a sequence of characters having a format corresponding to the predetermined format, said identified sequence of characters being deemed to constitute an identified entry.

13. (Previously Presented) Apparatus according to claim 12, wherein for the free text field, the processor is arranged to define any data not identified as an entry as a free text entry.

14. (Previously Presented) Apparatus according to claim 13, wherein the free text entry comprises at least one free text word defined by a sequence of alphanumeric characters, the processor being arranged to identify at least one selected free text word for a field by comparing the free text entry with at least one selection criterion defining one or more predetermined characteristics of a selected free text word.

15. (Previously Presented) Apparatus according to claim 11, wherein the items within the semi-structured database are further arranged in groups of items, each group being located in a heading field and being identified by at least one heading entry, wherein the processor is arranged to identify a heading entry by comparing each heading field with each of a plurality of selection criteria defining one or more predetermined characteristics of a respective heading entry, and is arranged to generate index entries representing a concordance between such heading entries and the group of items in the heading field.

16. (Previously Presented) Apparatus according to claim 11, wherein the slot filler is arranged to identify verb components forming a verb or verb group in the parsed request and to allocate any such identified verb components to a slot in accordance with a predetermined mapping between verb components and slots.

17. (Previously Presented) Apparatus according to claim 16, wherein the slot filler is arranged to identify any subject components in accordance with the position of the verb or verb group within the request and to allocate any such identified subject components to a slot in accordance with a predetermined mapping between subject components and slots.

18. (Previously Presented) Apparatus according to claim 16, wherein, in the absence of identifying verb components, the slot filler is arranged to deem any components to be object components.

19. (Previously Presented) Apparatus according to claim 11, wherein the data store is part of the apparatus.

---